

# Navigating Financial Incentives for Anaerobic Digestion in Massachusetts



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## The MassCEC Mission



**Build** sustainable clean energy industry to create jobs, long-term economic growth



**Cultivate** a robust marketplace for innovation in clean technologies



**Accelerate** cost reduction for clean energy technology



**Support** training and education to build a skilled workforce

## Overview of Incentives for AD

- **Production Incentives**
  - *Renewable Energy Certificates*
  - *Alternative Energy Certificates*
  - *Net Metering*
- **Grants & Rebates**
  - *Studies, Planning*
  - *Design/Construction; CHP*
- **Loans for Recycling Equipment, WWTPs**
- **Tax-Exempt Financing**
- **Long-Term Contracts for Power/RECS**



## Production Incentives: RECs

- **Renewable Energy Certificates (RECs)**
- **Department of Energy Resources qualifies facilities for MA RPS**
- **Anaerobic digestion is in MA Class I**
  - **2015 Alternative Compliance Price (ceiling): \$67.07/MWh**
  - **MassCEC's has observed REC prices in the range of ~\$32 to \$64/MWh since Fall 2011**



## Production Incentives: AECs

### Alternative Energy Certificates (AECs)

- **Current:** for combined heat-and-power projects
- Projects may be eligible for *both* AECs and RECs
- 2015 Alternative Compliance Pmt: \$22.02/MWh
- Requires metering of biogas, heat
- **Future:** Any thermal load supplied by biogas will be eligible (DOER is revising regs)



## Production Incentives: RE Net Metering



- “Virtual net metering”: RE generators can assign credits to other customers in territory for electricity generated that is in excess of the amount used on-site
- Credits worth close to *retail* value of electricity
- Caps are filling!
- Legislative action required to resolve



## Grants and Rebates: Planning & Studies

### MassCEC's Organics-to-Energy Program

- Feasibility Study Grants (*public or private*)
  - Must have site, some feedstock
  - Farms, WWTPs, food processors
- Technical Studies/Services Grants (*public only*)
  - Follow-up studies, RFP development, etc.
  - Studies of publicly-owned sites that may be suitable for lease to developers
- Grants of Services (*public only*)
  - Strategic planning
  - Community outreach
  - Meeting facilitation



## Grants and Rebates: Planning & Studies (cont.)

- **Project Review**
  - **Municipal Boards (e.g., Health, Planning) can request grants to hire consultants to help review projects proposed by others**





## Grants and Rebates: Design & Construction



- **MassCEC's Organics-to-Energy Program**
  - Public or private; in RE Trust-contributing territory
  - Food waste or other feedstocks; CHP additions
  - Up to \$400,000/project; up to 25% design/permit
- **MassDEP's Sustainable Materials Recovery Program**
  - "Organics Capacity" projects - food waste focus
  - Municipal/regional groups; partnership with private entities encouraged
  - Up to \$500,000/project; up to 15% soft costs

## MA Department of Agricultural Resources

- Agricultural Energy Grant Program
- Agricultural Environmental Enhancement Program
- *assistance accessing USDA programs*



Yes, you can get a grant from more than one MA agency





## Combined Heat & Power Rebates



- Administered by MassSave energy efficiency “program administrators” (utilities)
- Generally \$750/kW, potentially \$950/kW or more
- Project must pass benefit-cost test, performed by utility
- “Thermal load is key”
- Apply early in the planning process



## Loans

### Recycling Loan Fund

- Administered by BDC Capital ([www.bdcnewengland.com](http://www.bdcnewengland.com))
- Funded by MassDEP
- Up to \$1.5 million; interest rates as low as 2%



### Clean Water State Revolving Fund (“SRF”)

- Low interest loans for public wastewater plants





## MassDevelopment

- **Tax-Exempt Financing**
  - for qualifying Solid Waste Recovery and Recycling Facilities, District Energy Systems, and small manufacturing facilities
  - lowers debt costs 1-2%
- **Approved lender for USDA Loan Guarantees**
- **Brownfields Redevelopment Fund**
  - Environmental site assessment (grants)
  - Remediation loans

[www.massdevelopment.com](http://www.massdevelopment.com)



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## Long-Term Contracts for Power & RECs

### “Sec. 83A Carve-Out” Process

- 2012 Legislative Mandate: Utilities must solicit bids for 0.4% of distribution load from “emerging” renewable energy technologies via long-term (10-20 year) contracts
  - In operation by July 1, 2018
  - Energy must be “cost-effective” for the utility
- June 2015: Competitive RFP issued
- **Dec 2015: Short list announced**
- Feb 2016: DPU approves contracts



### PowerOptions (energy-buying consortium)

- Competitive procurement of renewable energy on behalf of its members
- 4-week bid period in October 2015



## Questions?

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